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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER	
CHIO, TAT CHI	

ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/642,693	SEO ET AL.	
	Examiner	Art Unit	
	TAT CHIO	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7,15,17-24,27-32,38,40 and 42-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-7, 15, 17-24, 27-32, 38, 40, and 42-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/22/2009, 5/21/2009, and 8/21/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3-7, 15, 17-24, 27-32, 38, 40, and 42-48 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 32 is objected to because of the following informalities: claim 32 is dependent on claim 41, but claim 41 is cancelled. Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 18-21, and 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (5,870,523) in view of Tsumagari et al. (US 6,480,669 B1) and Kato et al. (US 7,477,833 B2).

Consider claims 1, 18, and 20, Kikuchi teaches a recording medium storing an executable data structure for managing reproduction by a reproduction apparatus of at least video data having multiple reproduction paths recorded on the computer-readable medium, comprising: one or more management files for managing reproduction of the video data by the reproducing apparatus, the management file being separate from a clip file storing the video data (Fig. 6, Fig. 25, and Fig. 26 show that the management areas (PCI and DSI) and separate from the video data since they are stored in different

packs), each clip file being associated with each management file, each clip file of the multiple reproduction paths being associated with one of the multiple reproduction paths the management file storing at least one entry point map associated with one of the multiple reproduction paths (Fig. 27-Fig. 29 and Fig. 31-Fig. 33), wherein the entry point map includes path change information for managing changing of reproduction paths by the reproducing apparatus, the path change information having a plurality of fields (col. 27, lines 6-44), each field associated with at least one of the plurality of entry points (col. 27, lines 6-44), and the path change information includes a field for identifying whether a changing reproduction paths is permitted in relation to the associated entry point (Fig. 37A, Fig. 37B, and Fig. 40) and another field for identifying where changing reproduction paths is permitted in relation to the associated entry point (Fig. 29 and Fig. 33), but Kikuchi does not explicitly teach the entry point map mapping a data packet address of each entry point to a presentation time stamp of the entry point.

Tsumagari teaches the entry point map mapping a data packet address of each entry point to a presentation time stamp of the entry point (col. 16, line 66-col. 17, line 5, col. 32, lines 31-38, and col. 33, lines 26-34). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate entry point map that maps a data packet address of each entry point to a presentation time stamp of the entry point to facilitate efficient reproduction operation.

Kikuchi and Tsumagari do not explicitly teach each entry point map for identifying entry points in the video data for the associated reproduction path (Fig. 29 and Fig. 33).

Kato teaches each entry point map for identifying a plurality of entry points in the video data for the associated reproduction path (Fig. 120 and Fig. 121). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the entry point map to identify a plurality of entry points in the video data for the associated reproduction path to efficiently manage the video data.

Consider claims 19 and 21, Kikuchi, Tsumagari, and Kato teach a method of reproducing a data structure for managing reproduction of video data having multiple reproduction paths recorded on a recording medium, comprising: reproducing management information from one or more management files of the recording medium, the management information including at least one entry point map associated with one of the multiple reproduction paths (Fig. 27-Fig. 29 and Fig. 31-Fig. 33 of Kikuchi), each entry point map for identifying a plurality of entry points in the video data for associated reproduction path (Fig. 120 and Fig. 121 of Kato), the entry point map mapping data packet address of an entry point to a presentation time stamp of the entry point (col. 16, line 66-col. 17, line 5, col. 32, lines 31-38, and col. 33, lines 26-34 of Tsumagari), the management files being separate from clip file for storing the video data (Fig. 6, Fig. 25, and Fig. 26 show that the management areas (PCI and DSI) and separate from the video data since they are stored in different packs of Kikuchi), each clip file being associated with each management file, each clip file of the multiple reproduction paths being associated with one of the multiple reproduction paths (Fig. 27-Fig. 29 and Fig. 31-Fig. 33 of Kikuchi), wherein the entry point map includes path change information

having a plurality of fields, each field associated with at least one of the plurality of entry points (Fig. 37A, Fig. 37B, and Fig. 40 of Kikuchi), and the path change information includes a field for identifying whether changing reproduction paths is permitted in relation to the associated entry point and another field for identifying where changing reproduction paths is permitted in relation to the associated entry point (Fig. 29 and Fig. 33 of Kikuchi); and reproducing the video data based on the management information, wherein the reproducing step further including changing a reproduction path from a current reproduction path to a requested reproduction path based on the path change information if the changing reproduction path is permitted (col. 27, lines 6-45 of Kikuchi).

Consider claims 44, 45, 46, 47, and 48, Kikuchi and Kato teach at least one playlist file, the playlist file including at least one playitem, the playitem identifying a playing interval in a reproduction path of the video data (PGC playback time of Fig. 18 of Kikuchi), the playitem indicating at least one management file for an associated reproduction path (Fig. 124 of Kato).

3. Claims 3-7, 17, 22-24, 27-32, 38, 40, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (5,870,523) in view of Tsumagari et al. (US 6,480,669 B1) and Kato et al. (US 7,477,833 B2) as applied to claims 1 and 18-21 above, and further in view of Sato et al. (5,884,004).

Consider claim 3, Kikuchi and Tsumagari teach all the limitations in claim 1 but does not teach the recording medium, wherein the fields for permitting a change in a same associated reproduction path define one or more units of video data.

Sato teaches the recording medium, wherein the fields for permitting a change in a same associated reproduction path define one or more units of video data (Fig. 20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate fields for permitting a change in a same associated reproduction path define one or more units for video data to ensure seamless angle change.

Consider claim 4, Sato et al. teach the recording medium of claim 3, further comprising: a data file having at least the video data recorded therein, and at least a portion of the video data being multiplexed on a unit of video data basis (col. 10, lines 16-20).

Consider claim 5, Sato et al. teach the recording medium, wherein the multiple reproduction paths of video data are different camera angles of video data (Fig. 5).

Consider claim 6, Sato et al. teach the recording medium, wherein each unit of video data starts with an I-picture (Fig. 78 and col. 51, lines 60-65).

Consider claim 7, Sato et al. teach the recording medium, wherein each unit of video data starts with a closed group of pictures (GOP) (Fig. 78).

Consider claim 17, Sato et al. teach the recording medium, wherein if the field indicates that changing reproduction paths is permitted in relation to the associated entry point (col. 27, lines 6-44, Fig. 29, and Fig. 33), the another field associated with the entry point indicates start position of the data packet of the video data (col. 27, lines 6-44, Fig. 29, and Fig. 33)

Consider claim 22, Sato et al. teach the method wherein the fields for permitting a change in a same associated reproduction path define one or more units of video (Fig. 20).

Consider claim 23, Sato et al. teach the method wherein at least one portion of the video data is recorded in a data file being multiplexed on a unit of video data basis (col. 10, lines 16-20).

Consider claim 24, Sato et al. teach the method, wherein the multiple reproduction paths of a video are different camera angles of video data (Fig. 5).

Consider claim 27, Sato et al. teach the method, wherein the multiple reproduction paths of a video are different camera angles of video data (Fig. 5).

Consider claim 28, Sato et al. teach the apparatus wherein the fields permitting a change in a same associated reproduction path define one or more units of video (Fig. 20).

Consider claim 29, Kikuchi teaches the apparatus wherein if the field indicates that changing reproduction paths is permitted in relation to the associated entry point (col. 27, lines 6-44, Fig. 29, and Fig. 33), the another field associated with the entry point indicates a start position of a data packet of the video data (col. 27, lines 6-44, Fig. 29, and Fig. 33).

Consider claim 30, Sato et al. teach the apparatus wherein the fields permitting a change in a same associated reproduction path define one or more units of video (Fig. 20).

Consider claim 31, Kikuchi teaches the apparatus wherein another field associated with the entry point indicates a start position of a unit associated with the entry point (col. 27, lines 6-44, Fig. 29, and Fig. 33).

Consider claim 32, Kikuchi teaches the recording medium, wherein the data area stores a plurality of clip files (Fig. 6), each clip file is associated with each reproduction path (Fig. 29 and Fig. 33), each clip file associated with an entry point map (Fig. 27-Fig. 29 and Fig. 31-Fig. 33).

Consider claims 38, 40, and 42, Kikuchi teaches the recording medium, wherein the change of the reproduction path is performed if the change is permitted and a current reproduction path is maintained until a position at which exiting the current reproduction path is permitted (Fig. 37A, Fig. 37B, and Fig. 40).

Consider claim 43, Sato teaches the apparatus further comprising: an encoder configured to encode at least video data having multiple reproduction paths (Fig. 2), wherein the controller is configured to control the optical pickup to record the encoded video data (Fig. 2).

1. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (5,870,523) in view of Tsumagari et al. (US 6,480,669 B1) and Sato et al. (5,884,004) as applied to claims 1 and 3 above, and further in view of Sawabe et al. (6,031,962).

Consider claim 15, Kikuchi, Tsumagari, and Sato teach all the limitations in claims 1 and 3 but do not explicitly teach the computer-readable medium wherein the entry point maps are aligned in time.

Sawabe teaches the computer-readable medium wherein the entry point maps are aligned in time (Fig. 6 and Fig. 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the known technique in organizing the entry point maps that are aligned in time to a similar computer-readable medium to improve the structure of the computer-readable medium.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAT CHIO whose telephone number is (571)272-9563. The examiner can normally be reached on Monday - Thursday 9:00 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Q. Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. C. C./
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621